CLAIMS

What Is Claimed Is:

1. A surface mount electrical component assembly comprising:

a retainer comprising a retaining base having on opening and an annular collar around said opening;

an electrical component retained in the annular collar of said retainer, said electrical component having a plurality of electrical leads thereon; and

a plurality of conductive ends connected to the bottom of said retaining base, said conductive ends adapted to receive said electrical leads for electrical connection to said electrical component.

2. The surface mount electrical component assembly of claim 1 wherein each of said plurality of conductive ends comprises a conductive pad.

3. The surface mount electrical component assembly of claim 1 wherein said annular collar has external threading.

4. The surface mount electrical component assembly of claim 3 further comprising a retaining cap.

5. The surface mount electrical component assembly of claim 4 wherein said retaining cap has internal threading.

6. The surface mount electrical component assembly of claim 1 wherein said annular collar is made of a stiff resilient insulator.

7. The surface mount electrical component assembly of claim 6 wherein said annular collar is made of rubber.

8. The surface mount electrical component assembly of claim 1 further comprising means for enhancing the retention of the electrical component in said annular collar.

9. The surface mount electrical component assembly of claim 8 wherein said means for enhancing the retention of the electrical component is a series of ribs.

10. The surface mount electrical component assembly of claim 1 further comprising a plurality of non-conductive pads connected to the bottom of the retaining base for connection to a printed circuit board.

11. The surface mount electrical component assembly of claim 1 wherein said conductive ends are molded to the retaining base.

12. The surface mount electrical component assembly of claim 1 wherein said conductive ends have crimped outer portions for gripping the periphery of said retaining base.

13. The surface mount electrical component assembly of claim 12 wherein said retaining base has a circular shape and includes a pair of elevated stops at diametrically opposed positions thereon, and wherein the crimped outer portions of the conductive ends grip the retaining base between said elevated stops.

14. The surface mount electrical component assembly of claim 13 wherein said elevated stops are tapered to permit the retainer to be locked through rotation in either a clockwise or counterclockwise direction.

15. The surface mount electrical component assembly of claim 1 wherein said plurality of conductive ends are opposite ends of a strip comprising the two conductive ends separated by an insulating area.

16. A surface mount electrical component assembly comprising:

a hollow retainer comprising a base portion with an opening thereon and a cylindrical portion having a closed end opposite the opening;

an electrical component within said retainer, said electrical component having a plurality of electrical leads extending therefrom; and

a plurality of conductive ends mounted to said base portion and adapted to receive said electrical leads in area of the opening.

17. The surface mount electrical component assembly of claim 16 wherein each of said plurality of conductive ends comprises a conductive pad.

18. The surface mount electrical component assembly of claim 16 further comprising means for enhancing the retention of the electrical component in said hollow retainer.

19. The surface mount electrical component assembly of claim 18 wherein said means for enhancing the retention of the electrical component is a resilient filler material.

20. The surface mount electrical component assembly of claim 19 wherein said resilient filler material is selected from the group consisting of elastic filler, foam rubber, silicone, and urethane elastomer.

21. The surface mount electrical component assembly of claim 18 wherein said means for enhancing the retention of the electrical component is radially extending ribs.

22. The surface mount electrical component assembly of claim 18 wherein said means for enhancing the retention of the electrical component is a cantilevered arm.

23. The surface mount electrical component assembly of claim 16 further comprising a plurality of non-conductive pads connected to the bottom of the base portion for connection to a printed circuit board.

24. The surface mount electrical component assembly of claim 16 wherein said conductive ends are molded to the base portion.

25. The surface mount electrical component assembly of claim 16 wherein said conductive ends have crimped outer portions for gripping the periphery of said base portion.

26. The surface mount electrical component assembly of claim 25 wherein said base portion has a circular shape and includes a pair of elevated stops at diametrically opposed positions thereon, and wherein the crimped outer portions of the conductive ends grip the base portion between said elevated stops.

27. The surface mount electrical component assembly of claim 26 wherein said elevated stops are tapered to permit the retainer to be locked through rotation in either a clockwise or counterclockwise direction.

28. The surface mount electrical component assembly of claim 16 wherein each of said conductive ends has a hole therein, and wherein the base portion includes a plurality of protruding bosses inserted in said holes.

29. The surface mount electrical component assembly of claim 16 wherein said plurality of conductive ends are opposite ends of a strip comprising the two conductive ends separated by an insulating area.

30. A printed circuit board for mounting a surface mount electrical component, said circuit board comprising:

a plurality of conductive ends in electrical connection with said circuit board, said ends having electrical connectors adapted to receive electrical leads from said surface mount electrical component;

a retainer comprising a retaining base having on opening and an annular collar around said opening; and

wherein said plurality of conductive ends are connected to the bottom of said retaining base, and wherein said electrical connectors of said conductive ends are adapted to receive said electrical leads in the area of said opening.

31. The printed circuit board of claim 30 wherein each of said plurality of conductive ends comprises a conductive pad.

32. The printed circuit board of claim 30 wherein said annular collar has external threading.

33. The printed circuit board of claim 30 further comprising a retaining cap.

34. The printed circuit board of claim 33 wherein said retaining cap has internal threading.

35. The printed circuit board of claim 30 wherein said annular collar is made of a stiff resilient insulator.

36. The surface mount electrical component assembly of claim 35 wherein said annular collar is made of rubber.

37. The printed circuit board of claim 30 further comprising means for enhancing the retention of the electrical component in said annular collar.

38. The printed circuit board of claim 37 wherein said means for enhancing the retention of the electrical component is a series of ribs.

39. The printed circuit board of claim 30 further comprising a plurality of non-conductive pads connected to the bottom of the retaining base for connection to the printed circuit board.

40. The printed circuit board of claim 30 wherein said conductive ends are molded to the retaining base.

41. The printed circuit board of claim 30 wherein said conductive ends have crimped outer portions for gripping the periphery of said retaining base.

42. The printed circuit board of claim 30 wherein said plurality of conductive ends are opposite ends of a strip comprising the two conductive ends separated by an insulating area.

43. A surface mount electrical component assembly comprising:

a retainer, comprising a retaining base having on opening and an annular collar around said opening, for retaining an electrical component in the annular collar of said retainer; and

a plurality of conductive ends, connected to the bottom of said retaining base, for creating an electrical connection to an electrical component.

44. The surface mount electrical component assembly of claim 43 further comprising an electrical component.

45. The surface mount electrical component assembly of claim 43 wherein each of said plurality of conductive ends comprises a conductive pad.

46. The surface mount electrical component assembly of claim 43 wherein the electrical component is a capacitor.

47. The surface mount electrical component assembly of claim 43 wherein the electrical component is a surface mount crystal.

48. The surface mount electrical component assembly of claim 43 wherein the electrical component is a resonator.

49. The surface mount electrical component assembly of claim 43 wherein the electrical component is a choke.

50. The surface mount electrical component assembly of claim 43 wherein the electrical component is an inductor.

51. The surface mount electrical component assembly of claim 43 wherein said annular collar has external threading.

52. The surface mount electrical component assembly of claim 51 further comprising a retaining cap.

53. The surface mount electrical component assembly of claim 52 wherein said retaining cap has internal threading.

54. The surface mount electrical component assembly of claim 43 wherein said annular collar is made of a stiff resilient insulator.

55. The surface mount electrical component assembly of claim 54 wherein said annular collar is made of rubber.

56. The surface mount electrical component assembly of claim 43 further comprising means for enhancing the retention of an electrical component in said annular collar.

57. The surface mount electrical component assembly of claim 56 wherein such means for enhancing the retention of the electrical component is a series of ribs.

58. The surface mount electrical component assembly of claim 43 further comprising a plurality of non-conductive pads connected to the bottom of the retaining base for connection to a printed circuit board.

59. The surface mount electrical component assembly of claim 43 wherein said conductive ends are molded to the retaining base.

60. The surface mount electrical component assembly of claim 43 wherein said conductive ends have crimped outer portions for gripping the periphery of said retaining base.

61. The surface mount electrical component assembly of claim 60 wherein said retaining base has a circular shape and includes a pair of elevated stops at diametrically opposed positions thereon, and wherein the crimped outer portions of the conductive ends grip the retaining base between said elevated stops.

62. The surface mount electrical component assembly of claim 61 wherein said elevated stops are tapered to permit the retainer to be locked through rotation in either a clockwise or counterclockwise direction.

63. The surface mount electrical component assembly of claim 43 wherein said plurality of conductive ends are opposite ends of a strip comprising the two conductive ends separated by an insulating area